

What is claimed is:

1. A system for dispensing laundry additive materials into one or more stages of a laundering cycle which occurs during the operation of a drum-containing automatic fabric laundering washing machine, which system comprises:

A) a housing structure positioned within the washing machine in a fixed spatial relationship to the washing machine drum, which housing structure comprises a base and an openable and closable lid for the base;

B) an insert having at least one compartment which can be placed within the housing structure, the insert containing a laundry additive; and

C) a selectively actuatable puncturing element that controls the time at which a compartment containing a laundry additive is punctured, the selectively actuatable puncturing element being movable between a first position in which the selectively actuatable means does not pierce the insert to a second position in which the selectively actuatable puncturing element pierces the insert.

2. A system according to Claim 1 wherein the selectively actuatable puncturing element cooperates with a feature in the insert such that the selectively actuatable puncturing element pierces the insert when the lid is closed after placing the insert in the housing structure, or the selectively actuatable puncturing element does not pierce the insert when the lid is closed depending upon whether the feature is present or absent in the insert.

3. A system according to Claim 1 wherein the selectively actuatable puncturing element includes a weight that causes the selectively actuatable puncturing element to move from the first position to the second position during a spin cycle.

4. A system according to Claim 1 wherein the housing structure is positioned within the washing machine drum in a location where it will be contacted with the wash or rinse water in or being added to the drum.

5. A system according to Claim 4 wherein the insert contains one compartment for wash additive material and one compartment for rinse additive material.

6. A system according to Claim 5 wherein the insert contains two compartments for wash additive material and one compartment for rinse additive material.

7. A system according to Claim 1 wherein the insert is rigid and constructed from thermoformed polymeric material.
8. A system according to Claim 1 wherein the insert is constructed at least in part from flexible polymeric material.
9. A system according to Claim 3 wherein the selectively actuated puncturing element includes an arm having a knife at an end thereof that is pivoted to puncture a compartment of the insert during a spin cycle.
10. A system according to Claim 9 wherein the system includes two of the selectively actuated puncturing elements.
11. A system according to Claim 3 wherein the selectively actuatable puncturing element is operatively associated with a cam that rides in a cam track that determines the position of the element.
12. A system according to Claim 11 wherein the cam track is configured such that the selectively actuatable puncturing element pivots into a position in which the puncturing element punctures the insert during a spin cycle.
13. A system according to Claim 5 wherein the insert delivers from about 15 to 100 grams of wash additive material to at least one wash cycle and from about 5 to 50 grams of rinse additive material to at least one rinse cycle during the fabric laundering operation
14. A system according to Claim 4 wherein the housing structure is configured to retain substantially all of the contents of the opened rinse additive compartment(s) of the insert within the housing structure during the spin cycle of the laundering operation.
15. A system according to Claim 14 wherein, after cessation of the spin cycle, substantially all of the contents of the opened rinse additive compartment(s) of the insert flow into the washing machine drum through holes in the housing structure.
16. A method for providing dispensing of laundry additive materials into the several stages of the laundering cycle which occur during the operation of an drum-containing automatic fabric laundering washing machine, which method comprises:

- A) positioning a housing structure within the washing machine in a fixed spatial relationship to the washing machine drum, which housing structure comprises a base and an openable and closable lid for the base;
 - B) placing within the housing structure with its lid open at the beginning of the laundering operation, an insert having at least one compartment containing a laundry additive; and
 - C) providing at least one selectively actuatable puncturing element that in conjunction with the insert controls the time at which the compartment containing the laundry additive is punctured wherein the selectively actuatable puncturing element cooperates with a feature in the insert or a such that the selectively actuatable puncturing element pierces a compartment of the insert when the lid is closed after placing the insert in the housing structure or, the selectively actuatable puncturing element does not pierce the compartments of the insert when the lid is closed depending upon whether the feature is present or absent in the insert.
17. A method according to Claim 16 wherein the housing structure is positioned within the washing machine drum in a location where it will be contacted with the wash or rinse water in or being added to the drum.
18. A method according to Claim 17 wherein the insert contains one compartment for wash additive material and one compartment for rinse additive material.
19. A method according to Claim 17 wherein the insert contains two compartments for wash additive material and one compartment for rinse additive material.
20. A method according to Claim 16 wherein the insert is rigid and constructed from thermoformed polymeric material.
21. A method according to Claim 16 wherein the insert is constructed at least in part from flexible polymeric material.
22. A method according to Claim 16 wherein the selectively actuatable puncturing element includes a weight that causes the selectively actuatable puncturing element to move from the first position to the second position during a spin cycle.

23. A method according to Claim 22 wherein the selectively actuated puncturing element includes an arm having a knife at an end thereof that is pivoted to puncture a compartment of the insert during a spin cycle.
24. A method according to Claim 23 wherein the system includes two of the selectively actuated puncturing elements.
25. A method according to Claim 16 wherein the housing structure is configured to retain substantially all of the contents of the opened rinse additive compartment(s) of the insert within the housing structure during the spin cycle of the laundering operation.
26. A method according to Claim 25 wherein, after cessation of the spin cycle, substantially all of the contents of the opened rinse additive compartment(s) of the insert flow into the washing machine drum through holes in the housing structure.
27. A housing structure, suitable for positioning within the drum of an automatic washing machine for fabric laundering and suitable for dispensing laundry additive materials into the drum from an insert having at least one compartment containing a laundry additive held within the housing structure, which housing structure comprises a base suitable for holding the insert, and an openable and closable lid for the base, the housing structure further comprising at least one selectively actuatable puncturing element that controls the time at which the at least one compartment is pierced wherein the selectively actuatable puncturing element includes a weight that causes the selectively actuatable puncturing element to move from the first position in which it does not pierce the compartment to the second position in which it does pierce the compartment from a centrifugal force generated during a spin cycle.
28. A housing structure according to Claim 27 wherein the selectively actuated puncturing element includes an arm having a knife at an end thereof that is pivoted to puncture a compartment of the insert during a spin cycle.
29. A housing structure according to Claim 28 wherein the structure includes two of the selectively actuated puncturing elements.
30. A housing structure according to Claim 28 wherein the arm is operatively associated with a cam that rides in a cam track that determines the position of the arm.

31. A housing structure according to claim 30 wherein the cam track is configured such that the arm pivots into a position in which the puncturing element punctures the insert during a spin cycle.
32. A kit comprising the housing structure defined in claim 27 in combination with an insert having at least one compartment containing a laundry additive.
33. A selectively actuatable puncturing member for puncturing a container comprising an arm, a cam, a cam channel in which the cam can travel, and a puncturing element on or near one end of the arm, wherein the arm is weighted such that the arm pivots about a point in response to a centrifugal force, and the extent to which the arm can pivot about the point is controlled by the travel of the cam in the cam channel, and further wherein by controlling the pivot of the arm, the puncturing element is rendered able or not able to puncture a container.
34. The puncturing member of claim 33 wherein the puncturing member operates in association with a stop which blocks the cam from returning to a starting position in the cam channel when the arm is in a position in which the puncturing element is able to puncture the container, and the cam is able to return to a starting position in the cam travel when the stop is moved from the blocking position.
- 35 The puncturing member of claim 34 wherein the stop is present on the lid of a dispenser.